

CHAPTER-3 | Pair of Linear Equations in Two Variables

QUIZ PART-02

1. The system of equations $x + y = 5$ and $2x + 2y = 10$ is:
- Consistent and dependent
 - Consistent and independent
 - Inconsistent
 - None of these

Explanation: The second equation is a multiple of the first, indicating infinitely many solutions.

2. The equations $5x - 4y + 8 = 0$ and $7x + 6y - 9 = 0$ are:
- Parallel
 - Coincident
 - Intersecting
 - None of these

Explanation: The lines are parallel as the ratios of coefficients are not equal.

3. The equations $9x + 3y + 12 = 0$ and $18x + 6y + 24 = 0$ are:
- Coincident
 - Parallel
 - Intersecting
 - None of these

Explanation: These equations represent the same line, so they are coincident.

4. The system of equations $6x - 3y + 10 = 0$ and $2x - y + 9 = 0$ is:
- Consistent
 - Inconsistent
 - Parallel
 - Coincident

Explanation: The lines intersect at a point, hence the system is consistent.

5. The system of equations $3x + 2y = 5$ and $2x - 3y = 7$ is:
- Consistent and independent
 - Inconsistent
 - Dependent
 - None of these

Explanation: The system has a unique solution, hence it is consistent and independent.

6. The equations $2x - 3y = 8$ and $4x - 6y = 9$ are:
- Consistent
 - Inconsistent
 - Dependent
 - Independent

Explanation: The lines are parallel and do not intersect, so the system is inconsistent.

7. The system $3x + 5y = 7$ and $9x + 10y = 14$ is:
- Consistent
 - Inconsistent
 - Coincident
 - Parallel

Explanation: The system is consistent as the equations are proportional and represent intersecting lines.

8. The system $x + y = 5$ and $2x + y = 6$ has:
- Infinite solutions
 - One solution
 - No solution
 - None of these

Explanation: Solving the system gives a unique solution: $x = 1, y = 4$.

9. Which system is inconsistent?
- $x + y = 5, 2x + 2y = 10$
 - $x + y = 5, 2x + 2y = 8$
 - $3x + 2y = 5, 2x - 3y = 7$
 - $x + y = 5, 2x + y = 6$

Explanation: The second equation does not satisfy the system, making it inconsistent.

10. The system $5x - 3y = 11$ and $-10x + 6y = -22$ is:
- Consistent
 - Inconsistent
 - Dependent
 - None of these

Explanation: The second equation is a multiple of the first, indicating dependent equations.